Estimating sums of fractions
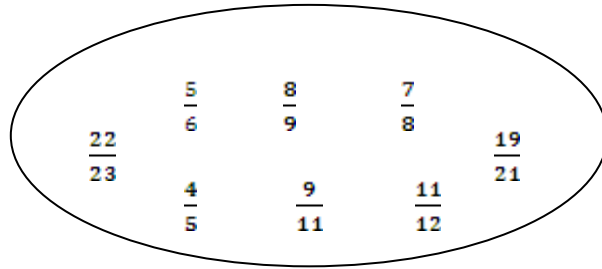
These fractions are all just less than one

$$\frac{5}{6} \quad \frac{8}{9} \quad \frac{7}{8}$$
$$\frac{22}{23} \qquad\qquad\qquad\qquad \frac{19}{21}$$
$$\frac{4}{5} \quad \frac{9}{11} \quad \frac{11}{12}$$

Suppose two of them are added

$\frac{8}{9} + \frac{9}{11}$ The e sum must be ....

| less than | exactly | more than |
| 2 | 2 | 2 |

Suppose three of these fractions are added. The sum must be ....

Think!

Suppose two fractions, each less than $\frac{1}{2}$ are added.

The sum must be ....   Why?

Estimate these:

$\frac{7}{8} + \frac{5}{9}$ about ....

$\frac{4}{5} + \frac{5}{9}$ about ....

$\frac{4}{9} + \frac{3}{8}$ about ....

Estimate: $\frac{23}{49}$ of 720   Clean the problem up. Think ......

- What simpler fraction is $\frac{23}{49}$ near to?

It is about $\frac{1}{2}$!

- Change it $\frac{1}{2}$ of 720

- Calculate That's 360!

Now estimate the following in the same way:

$\frac{16}{30}$ of 180   B. $\frac{4}{9}$ of £495   C. $\frac{14}{45}$ of 360

The last question is slightly more difficult. You need to think. What simpler fraction is $\frac{14}{45}$ is near to?

Also this might help. Think about how many times is 45 bigger than 14.

The exact answer for $\frac{16}{30}$ of 180 is found like this 16 ÷ 30 × 180. Compare your exact and estimate answers. Did you estimate close to the exact answer?